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TITLE: Manufacture of application-specific IC

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Next, as shown in FIG. 1C, the planarized film 4 is etched back until the surface of convexes of the insulating film 3 are exposed. For example, if the planarized film 4 is made of resist, it is etched in a parallel plate type dry etching system by flowing an etching gas of O.sub.2 300 sccm and N.sub.2 60 sccm mixed with 5% H.sub.2, under the conditions of a pressure of 0.55 Torr, a substrate temperature of 230.degree. C., and an RF power of 200 W at 13.56 MHz. The etching process is terminated when the convexes of the insulating film 3 are exposed while a planarized film 4a is left unetched, as shown in FIG. 1C.

L Number	Hits	Search Text	DB	Time stamp
1	612	BROWN-JEFFREY-J-.in. BROWN-J-J-.in. BROWN-J-JAMES-.in. DESHPANDE-S-.in. DESHPANDE-SADANAND-VINAYAK-.in. DESHPANDE-S-V-.in. HORAK-DAVID-.in. HORAK-DAVID-V-.in. HORAK-DAVID-VACLAV-.in. HORAK-DAVID-VACLAY-.in. HORAK-D-V-.in. SURENDRA-M-.in. SURENDRA-MAHESWARAN-.in. TSOU-L-Y-.in. TSOU-LEN-.in. TSOU-LEN-Y-.in. TSOU-LEN-YAN-.in. TSOU-LEN-YUAN-.in. YANG-QINGYUN-.in. YU-CHIENFAN-.in. ZHANG-YING-.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:39
2	645185	resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:40
3	232698	trim\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:44
4	29	trim\$5 with (first! near2 etch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:45
5	23712	second! near2 etch\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:46
6	9	(resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with (trim\$5 with (first! near2 etch\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:50
7	72	(BROWN-JEFFREY-J-.in. BROWN-J-J-.in. BROWN-J-JAMES-.in. DESHPANDE-S-.in. DESHPANDE-SADANAND-VINAYAK-.in. DESHPANDE-S-V-.in. HORAK-DAVID-.in. HORAK-DAVID-V-.in. HORAK-DAVID-VACLAV-.in. HORAK-DAVID-VACLAY-.in. HORAK-D-V-.in. SURENDRA-M-.in. SURENDRA-MAHESWARAN-.in. TSOU-L-Y-.in. TSOU-LEN-.in. TSOU-LEN-Y-.in. TSOU-LEN-YAN-.in. TSOU-LEN-YUAN-.in. YANG-QINGYUN-.in. YU-CHIENFAN-.in. ZHANG-YING-.in.) and (trim\$5 or (second! near2 etch\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:54
8	1	("20020142252").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 11:55
9	20	(trim\$5 with (first! near2 etch\$3)) not ((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with (trim\$5 with (first! near2 etch\$3)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:01
10	1330	(resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy).)) with trim\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:01
11	672021	oxygen o2 "o.sub.2"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:03

12	660577	nitrogen n2 "n.sub.2"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:03
13	1621	(oxygen o2 "o.sub.2") with (nitrogen n2 "n.sub.2") with etch\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:35
15	7131	chf3 "chf.sub.3"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:04
16	272114	ar argon	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:04
17	12	cf4/chf3/ar "cf4/chf3/ar" "cf.sub.4/chf.sub.3/ar"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:05
18	15002	cf4 carbon adj tetrafluoride "cf.sub.4"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:05
20	3	((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with trim\$5) with ((oxygen o2 "o.sub.2") with (nitrogen n2 "n.sub.2") with etch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:08
21	238	((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:09
22	7	((((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)) with (gate adj3 oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:10
23	0	((((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)) same ((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with trim\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:10
24	0	((((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)) same trim\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:10
25	1	((((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)) and ((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with trim\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:10
26	4	((((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4"))) with etch\$4) with (second! near2 etch\$3)) and trim\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:10

27	365	(oxygen o2 "o.sub.2") near3 (nitrogen n2 "n.sub.2") near3 etch\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:36
28	2	((oxygen o2 "o.sub.2") near3 (nitrogen n2 "n.sub.2") near3 etch\$3) with (resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with (trim\$5 reduc\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:48
29	10	((oxygen o2 "o.sub.2") near3 (nitrogen n2 "n.sub.2") near3 etch\$3) same (resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) same (trim\$5 reduc\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:51
30	40	((oxygen o2 "o.sub.2") with (nitrogen n2 "n.sub.2") with etch\$3) same (resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) same (trim\$5 reduc\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:51
31	30	((oxygen o2 "o.sub.2") with (nitrogen n2 "n.sub.2") with etch\$3) same (resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) same (trim\$5 reduc\$3)) not ((oxygen o2 "o.sub.2") near3 (nitrogen n2 "n.sub.2") near3 etch\$3) same (resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) same (trim\$5 reduc\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:55
32	0	((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with (trim\$5) with (gate adj oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 12:56
33	8	((resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with (trim\$5) same (gate adj oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:00
34	45	(resist photoresist photo-resist photosensitive photo-sensitive (sensitive near (photo light radiation energy))) with ((oxygen o2 "o.sub.2") near3 (nitrogen n2 "n.sub.2") near3 etch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:08
35	1246778	(gate adj oxide) oxide silicon adj (oxide dioxide) sio sio2 "sio.sub.2"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:10
36	1515	((gate adj oxide) oxide silicon adj (oxide dioxide) sio sio2 "sio.sub.2") with (((nitrogen n2 "n.sub.2") ((chf3 "chf.sub.3") with (ar argon) with (cf4 carbon adj tetrafluoride "cf.sub.4")))) with etch\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:12
40	96	((cf4/chf3/ar "cf4/chf3/ar") ((chf3 "chf.sub.3") near2 (ar argon) near2 (cf4 carbon adj tetrafluoride "cf.sub.4")))) with etch\$3 with ((gate adj oxide) oxide silicon adj (oxide dioxide) sio sio2 "sio.sub.2")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:22

41	4	((cf4/chf3/ar "cf4/chf3/ar" "cf.sub.4/chf.sub.3/ar") ((chf3 "chf.sub.3") near2 (ar argon) near2 (cf4 carbon adj tetrafluoride "cf.sub.4")) with etch\$3 with ((gate adj oxide) oxide silicon adj (oxide dioxide) sio sio2 "sio.sub.2") with sccm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:27
42	25	((cf4/chf3/ar "cf4/chf3/ar" "cf.sub.4/chf.sub.3/ar") ((chf3 "chf.sub.3") near2 (ar argon) near2 (cf4 carbon adj tetrafluoride "cf.sub.4")) same etch\$3 same ((gate adj oxide) oxide silicon adj (oxide dioxide) sio sio2 "sio.sub.2") same sccm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:30
43	30	(etch\$3 near2 condition) with sccm with ratio with power with pressure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:33
44	0	(etch\$3 near2 condition) with (vary varied varying) with (depend\$3 dependent) with ratio with sccm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:35
45	90	(etch\$3 near2 condition) with (vary varied varying) with (depend\$3 dependent)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:37
46	9	(etch\$3 near2 condition) with (vary varied varying) with (depend\$3 dependent) with (ratio sccm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:38
47	61	(etch\$3) with (vary varied varying) with (depend\$3 dependent) with (ratio sccm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/05 13:41